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Claim 22 (new). The ink according to claim 1, wherein R represents a branched C₄-C₁₀ group.

REMARKS

The Official Action of October 1, 2002 has been carefully considered and reconsideration of the application as amended is respectfully requested.

The claims have been amended to remove the basis for the Examiner's objection to the specification on page 2 of the Official Action and to remove the basis for the rejections to the claims under 35 USC 112, second paragraph appearing at page 2 of the Official Action. Support for the amendments to the claims appears in the specification as filed at, for example, page 5, lines 5-19 and lines 32-33. The portion of the specification also assures correspondence between the specification and the claims as amended. All claims as amended are believed to be sufficiently definite to satisfy the dictates of 35 USC 112, second paragraph.

Claims 1, 2, 5-10 and 13-21 stand rejected under 35 USC 103(a) as allegedly being unpatentable over Nagai et al. Applicants respectfully traverse this rejection.

In Applicants' Amendment filed 27 June 2002, Applicants pointed out that the reference is ambiguous as to how many carbon atoms are in the optional surfactant

added to the recording liquid described in Nagai et al upon which the Examiner relies for the rejection (the surfactant represented by formula 5). In the light of this ambiguity, it is respectfully submitted that the USPTO cannot meet its burden of establishing that all limitations of the claimed invention are shown by the cited reference. See MPEP 706.02(j) ("the prior art reference. . .must teach all the claim limitations.")

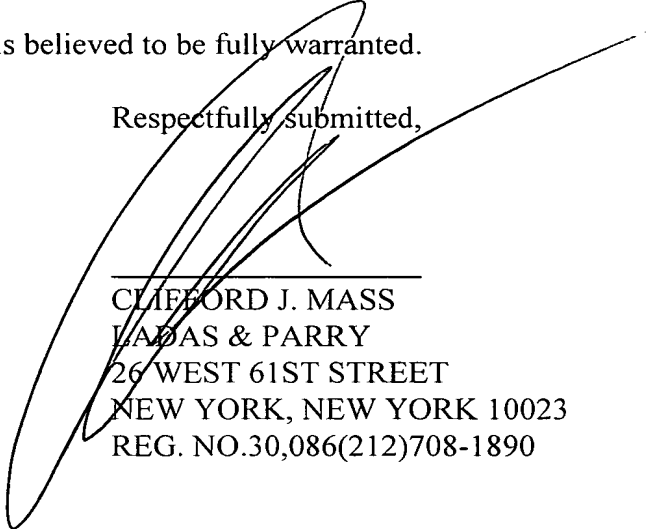
The Examiner has dismissed this argument with the statement that "the Examiner is unable to determine what is being claimed by Applicant therefore it is the position of the Examiner that Nagai et al would still read on the claims because a reference is not limited to working examples." This statement is respectfully not understood. If the Examiner is stating that the rejection has been continued because the claims were ambiguous, Applicants respectfully submit that the present amendment, which removes any ambiguity from the claims, should remove the basis for the rejection.

If the Examiner is stating that the rejection has been continued because the reference, when considered as a whole, teaches that the described surfactant comprises a carbon chain having 6 to 14 carbon atoms, Applicants respectfully disagree. As discussed in Applicants Amendment filed 27 June 2003, it is impossible to tell from the reference what the correct number of carbon atoms that (according to the reference) should be in the carbon chain represented by R^6 in the surfactant of formula 5 since the preferred embodiments show the surfactant with three (3) carbons in the chain. In view of the ambiguity of the reference, when considered as a whole, it cannot be said that the reference teaches the claimed compound of

formula I.

In view of the above, it is respectfully submitted that all rejections and objections of record have been overcome and that the application is in allowable form. An early notice of allowance is earnestly solicited and is believed to be fully warranted.

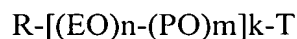
Respectfully submitted,



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Claim 1 (twice amended) An ink for ink jet recording, comprising at least a water-soluble colorant, a water-soluble organic solvent, water, and a mixture of two or more compounds represented by formula (I):



wherein

EO represents an ethyleneoxy group;

PO represents a propyleneoxy group;

T represents an OH group or SO_3M wherein M represents a hydrogen atom, an alkali metal, an inorganic base, or an organic amine;

m and n are each an integer;

k is a natural number of not less than 1; and

R represents

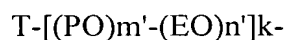
[a C_aH_{2a-k-1} group where "a" represents natural number of 4 to 10, or

an $Ra-C_aH_{2a-k-2}$ group where "a" represents natural number of 4 to 10 and] a C_{4-10}

10 branched or straight chain alkyl group or a group comprising Ra bonded to a C_{4-10}

branched or straight chain alkyl group, wherein Ra represents a group represented by the

following formula:



wherein

EO, PO, T and k each are as defined above; and

n' and m' are respectively n and m ,

EO and PO being arranged, regardless of order in the parentheses, randomly or as blocks joined together,

n or $n + n'$ being 1 to 10 with m or $m + m'$ being 0 to 5 when n and m and n' and m' are expressed in terms of the average value for the mixture of compounds represented by formula (I) contained in the ink.

Claim 2 (amended) The ink according to claim 1, wherein the compounds, represented by formula (I), constituting the mixture each are such that [R represents a C_aH_{2a-k-1} group and] T represents an OH group.

Claim 3 (amended) The ink according to claim 1, wherein the compounds, represented by formula (I), constituting the mixture each are such that [R represents an $Ra-C_aH_{2a-k-2}$ group and] T represents an OH group.

Claim 5 (amended) The ink according to claim 1, wherein the compounds, represented by formula (I), constituting the mixture each are such that [R represents a C_aH_{2a-k-1} group,] EO represents $-CH_2CH_2O-$, PO represents $-CH(CH_3)-CH_2O-$, and T represents an OH group, R, EO, PO, and T being attached to one another in that order to represent formula $R-(EO)_n-(PO)_m-T$.

Claim 6 (amended) The ink according to claim 1, wherein the mixture of compounds represented by formula (I) is composed of:

a compound represented by formula (I) wherein [R represents a C_aH_{2a-k-1} group and] T represents an OH group, R, EO, PO, and T being attached to one another in that order to represent formula $R-(EO)_n-(PO)_m-T$; and

a compound represented by formula (I) wherein [R represents a C_aH_{2a-k-1} group and] T represents an OH group, R, EO, PO, and T being attached to one another in that order to represent formula $R-(PO)_m-(EO)_n-T$.

Claim 10 (amended) The ink according to claim 1, wherein R represents a straight-chain [or branched C_aH_{1a-k-1}] C_7-C_{10} group.